

PRO-GUIDE BATTERIES

SAFETY DATA SHEET

Lithium Iron Phosphate (LiFePO₄) Battery • Model PGL31M235-DP

SDS No.: PG-SDS-PGL31M235-DP | Version: 1.0 | Date of Preparation: January 28, 2026 | Supersedes: None

SECTION 1: IDENTIFICATION

Product Name: Pro-Guide Lithium Iron Phosphate Battery

Model Number: PGL31M235-DP

Product Type: Rechargeable lithium iron phosphate (LiFePO₄) battery pack, Group 31 marine

Rating: 12.8 V / 235 Ah / 3,008 Wh

Weight: 23.26 kg (51.3 lb) • Energy density: 129.34 Wh/kg

Recommended Use: Deep-cycle marine and recreational power applications

Restrictions on Use: Use only with a compatible lithium (LiFePO₄) charger per product instructions

Responsible Party: Battery Outfitters, INC

Address: 35687 State Hwy 86 Golden, MO

Telephone: 1-800-374-8794

E-mail: support@batteryoutfitters.com

24-Hour Emergency Phone: Chemtrec 1-800-424-9300

Note: This product is a manufactured article containing chemicals in a sealed enclosure. Under normal conditions of use, it does not release hazardous substances. This Safety Data Sheet is provided as a service to customers and for transportation, storage, and emergency-response information.

SECTION 2: HAZARD IDENTIFICATION

GHS Classification: Not classified as hazardous under normal conditions of use (sealed article)

Signal Word: None required

Hazards Under Abuse Conditions

The battery may rupture, leak, vent, or in extreme cases catch fire or explode if exposed to temperatures above 60°C (140°F), fire, overcharge, short circuit, puncture, or crushing. Hazards below apply only to a ruptured or leaking battery:

- Eyes and skin – Leaked electrolyte is corrosive and irritating to ocular tissue and skin; contact may cause redness, tearing, and burns.
- Inhalation – Fumes released from heated or leaking batteries may irritate the respiratory system, causing coughing, wheezing, and shortness of breath.
- Ingestion – Contents of an open battery can cause serious chemical burns of the mouth, esophagus, and gastrointestinal tract.

Environmental Hazards: None under normal conditions of use

SECTION 3: COMPOSITION / INFORMATION ON INGREDIENTS

Chemical Composition	Formula	CAS No.	Weight (%)
Lithium iron phosphate	LiFePO ₄	15365-14-7	24
Graphite	C	7782-42-5	10 – 30
Lithium hexafluorophosphate (electrolyte salt)	LiPF ₆	21324-40-3	23
Copper (foil)	Cu	7440-50-8	7 – 13
Aluminum (foil)	Al	7429-90-5	5 – 10
Nickel	Ni	7440-02-0	1 – 5

All components are contained within a hermetically sealed enclosure. There is no exposure to these materials under normal conditions of use.

SECTION 4: FIRST AID MEASURES

Exposure is not anticipated under normal use. The following applies only to material released from a leaking or ruptured battery:

Skin Contact: Flush with copious amounts of clean water for at least 15 minutes. Seek medical attention if irritation persists.

Eye Contact: Flush with copious amounts of clean water for at least 15 minutes. Get medical attention at once.

Inhalation: Remove to fresh air. If irritation persists, consult a physician.

Ingestion: Rinse mouth and surrounding area with clean water at once. Consult a physician immediately for treatment.

SECTION 5: FIRE-FIGHTING MEASURES

Extinguishing Media: Dry chemical extinguishers are the most effective means to extinguish a battery fire. CO₂ extinguishers are also effective.

Unusual Fire / Explosion Hazards: Batteries may explode or leak potentially hazardous vapors when exposed to excessive heat (above the maximum rated temperature) or fire, or when overcharged, short-circuited, punctured, or crushed.

Hazardous Combustion Products: Fire, excessive heat, or over-voltage conditions may produce hazardous decomposition products. Damaged batteries can undergo rapid heating and release flammable vapors.

Fire-Fighting Procedures: Use positive-pressure self-contained breathing apparatus (SCBA) and full protective clothing if batteries are involved in a fire. Use caution during water application, as burning fragments may be ejected. Fight fires from a safe distance and evacuate the area.

SECTION 6: ACCIDENTAL RELEASE MEASURES

Material contained within the battery is released only under abusive conditions. In the event of battery rupture or leakage: wear appropriate protective clothing, ventilate the area, and collect all released material that is not hot or burning into an appropriate waste container. Place in an approved container and dispose of in accordance with local regulations.

SECTION 7: HANDLING AND STORAGE

Handling

- This battery is designed to be recharged; however, improper charging may cause the battery to flame. Charge only with a dedicated compatible charger under the specified conditions.
- Never disassemble or modify the battery.
- Do not immerse in water, throw, or allow the battery to become wet.
- If a battery is unintentionally crushed and releases its contents, use rubber gloves to handle all components and avoid inhaling any emitted vapors.
- Short circuits cause heating, reduce battery life, and can ignite surrounding materials. Physical contact with a short-circuited battery can cause skin burns.
- Avoid reversing polarity, which can damage the battery or cause fire.
- In the event of skin or eye exposure to electrolyte, refer to Section 4, First Aid Measures.

Storage

- Store separated from other materials in a noncombustible, well-ventilated, sprinkler-protected structure with sufficient clearance between walls and battery stacks. Do not place near heating equipment or expose to direct sunlight for long periods.
- Do not store above 35°C (95°F) or below -20°C (-4°F). For long-term storage, keep in a cool (approx. 20±5°C), dry, ventilated area with little temperature change. Elevated temperatures reduce cycle life; exposure above 60°C (140°F) may cause venting of flammable liquid and gases.
- Keep batteries in original packaging until use and do not jumble them.

SECTION 8: EXPOSURE CONTROLS / PERSONAL PROTECTION

Engineering Controls: Keep away from heat and open flame.

Ventilation: Not necessary under normal use. In case of abuse, use adequate mechanical (local exhaust) ventilation for batteries that vent gas or fumes.

Respiratory Protection: Not necessary under normal use. If a battery is burning, leave the area immediately; firefighters should use SCBA with full-face protection.

Eye Protection: Not necessary under normal use. Use safety glasses with side shields when handling a leaking or ruptured battery.

Body Protection: Not necessary under normal use. Use a rubber apron and protective work clothing when handling a leaking or ruptured battery.

Protective Gloves: Not necessary under normal use. Use chemical-resistant rubber gloves when handling a leaking or ruptured battery.

Other: Use good chemical hygiene practice. Wash hands thoroughly after cleaning up a battery spill. No eating, drinking, or smoking in battery storage areas.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

State	Solid
Odor	N/A
pH	N/A
Vapor pressure	N/A
Vapor density	N/A
Boiling point	N/A
Solubility in water	Insoluble
Specific gravity	N/A
Density	N/A

SECTION 10: STABILITY AND REACTIVITY

Stability: Stable

Conditions to Avoid: Do not heat, incinerate, disassemble, short-circuit, immerse in water, or overcharge.

Incompatibility: None during normal operation. Avoid exposure to heat, open flame, and corrosives.

Hazardous Polymerization: Will not occur.

Hazardous Decomposition Products: The battery may release irritating gas in the event of electrolyte leakage.

SECTION 11: TOXICOLOGICAL INFORMATION

The battery does not exhibit toxicological properties during routine handling and use. If the battery is opened through misuse or damage, discard it immediately. Internal cell components are irritants and potential sensitizers.

Irritancy: The electrolyte contained in this battery can irritate eyes on contact. Prolonged contact with skin or mucous membranes may cause irritation.

Sensitization: No information available.

Teratogenicity: No information available.

Carcinogenicity: No information available.

Mutagenicity: No information available.

Reproductive Toxicity: No information available.

SECTION 12: ECOLOGICAL INFORMATION

- When properly used and disposed of, the battery does not present an environmental hazard.
- The battery does not contain mercury, cadmium, or lead.

- Do not allow internal components to enter the marine environment. Avoid releasing to waterways, wastewater, or groundwater.

SECTION 13: DISPOSAL CONSIDERATIONS

- Dispose of batteries through permitted, professional disposal firms knowledgeable in federal, state, and local requirements for hazardous waste treatment and transportation. Do not dispose of in municipal trash.
- Fully discharge the battery prior to disposal and/or tape or cap the terminals to prevent short circuit. A completely discharged battery is not considered hazardous.
- The battery contains recyclable materials. Recycle through a licensed waste carrier where available. Batteries may also be returned to Pro-Guide Batteries through its designated return process for controlled disposal and recycling.

SECTION 14: TRANSPORT INFORMATION

UN Number: UN 3480 (lithium ion batteries) or UN 3481 (packed with / contained in equipment)

UN Proper Shipping Name: Lithium ion batteries (including lithium ion polymer batteries); Lithium ion batteries packed with equipment; Lithium ion batteries contained in equipment

Transport Hazard Class: 9 (Miscellaneous)

Packing Group: Not assigned (lithium batteries)

Labels / Marks: Class 9 lithium battery label; lithium battery mark

Marine Pollutant: No

Air (ICAO/IATA): May be shipped by air in accordance with ICAO Technical Instructions / IATA DGR Packing Instruction 965 Section IA (UN 3480, max. 30% state of charge) or PI 966–967 Section I (UN 3481), as applicable.

Sea (IMDG): International Maritime Dangerous Goods Code (IMDG Code, Amdt 42-24)

Road / Rail (ADR / RID): European agreements concerning the international carriage of dangerous goods by road (ADR) and rail (RID)

US Ground (DOT): 49 CFR §173.185

Each battery design has passed the tests of Section 38.3 of the UN Manual of Tests and Criteria (UN 38.3) as required by dangerous goods regulations prior to being offered for transport.

SECTION 15: REGULATORY INFORMATION

OSHA Hazard Communication Standard (29 CFR 1910.1200): This product is an article and is not subject to SDS requirements under normal conditions of use; this document is provided for information.

This product is subject to or has been evaluated against the following, as applicable:

- Consumer Product Safety Act (CPSA)
- Resource Conservation and Recovery Act (RCRA)
- Federal Environmental Pollution Control Act (FEPCA)
- US DOT Hazardous Materials Regulations (49 CFR)
- UN Recommendations on the Transport of Dangerous Goods – Model Regulations
- ICAO Technical Instructions / IATA Dangerous Goods Regulations
- International Maritime Dangerous Goods (IMDG) Code
- ADR / RID (international carriage of dangerous goods by road / rail)

In accordance with all applicable federal, state, and local laws.

SECTION 16: OTHER INFORMATION

Prepared By: Pro-Guide Batteries

Version / Date: Version 1.0 – July 28, 2026

This Safety Data Sheet was prepared based on component information and test data provided by the cell and pack manufacturer and is believed to be accurate as of the date of preparation.

Disclaimer: The information above is believed to be accurate and represents the best information currently available to us. However, no warranty of merchantability or any other warranty, express or implied, is made with respect to such information, and we assume no liability resulting from its use. Users should make their own investigations to determine the suitability of the information for their particular

purposes. This document provides guidelines for the safe handling and use of this product; it does not and cannot advise on all possible situations. Specific uses of this product should be evaluated to determine whether additional precautions are required.